IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (currently amended) A method, comprising:

regulating a flow of sequentially addressed data across a network between a source node and a destination node by limiting the number of units of said data ~~flow between two~~ traversing said network ~~nodes~~ to a set ~~an amount within~~ called a window such that ~~where a first portion of data within a first segment of said window is separated from a second portion of data within a second segment of said window by a third portion of data not within said window.~~:

 units are added to said window at such time as their transmission by said source is requested;

 units are removed from said window at such time as they arrive at said destination;

 units are removed from said window at such time as they are declared to have been lost;

the total number of units within said window is bounded above by said limiting number of units of said data traversing said network;
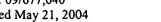
the difference between the smallest address whose corresponding unit is contained within said window, and the largest address whose corresponding unit is contained within said window, is unbounded; and, units are allowed to be noncontiguous.

2. (currently amended) The method of Claim 1 further comprising ~~sliding said second segment of~~ simultaneously adding an amount of units to said window ~~forward~~ upon

~~reception of an earliest portion of said second portion of data~~ <u>the number of units</u> <u>within said window being discovered to be below said limiting number</u>.

3. (currently amended) The method of Claim 2 wherein said ~~second segment~~ <u>amount</u> <u>of units being added</u> ~~slides forward an amount equal to a~~ <u>is limited to no more than</u> <u>the</u> minimum of:

 a) ~~said earliest portion size~~ <u>the difference between said limiting number and</u> <u>said number of units within said window</u>;

 b) an amount limited by a first capacity of ~~a first of said two network nodes~~ <u>said destination; and</u>

 c) an amount limited by a second capacity of ~~a second of said two network~~ ~~nodes~~ <u>said source</u>.

4. (currently amended) The method of Claim 3 wherein said first capacity of ~~a first of~~ ~~said two network nodes~~ <u>said destination</u> further comprises a client burst limit.

5. (currently amended) The method of Claim 3 wherein said second capacity of ~~a~~ ~~second of said two network nodes~~ <u>said source</u> further comprises a server burst limit.

6. (currently amended) The method of Claim 2 further comprising sending a request message over said network <u>between said source node and said destination node</u> for ~~a fourth portion of data~~ <u>one or more units of data</u>, said ~~fourth portion~~ <u>units</u> of data ~~within said second segment of~~ <u>being among those to be added to</u> said window.

7. (currently amended) The method of Claim ~~4~~ <u>2</u> further comprising ~~sliding said first~~ ~~segment of~~ <u>selecting those units to be added to</u> said window ~~forward and~~

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~~adjacent to said second~~ from among those units which are not currently within said window ~~segment to form a contiguous window upon reception of said first portion of data~~ and which have not previously been received by said destination.

8. (currently amended) The method of Claim 7 ~~further comprising sliding said contiguous window forward upon reception of an~~ wherein said selection of units to be added to said window prefers units with ~~earliest portion of data within said contiguous window~~ earlier addresses.

9. (currently amended) The method of Claim 1 wherein said ~~first, second and third data portions~~ sequentially addressed data correspond~~s~~ to a contiguous portions of a response requested from ~~a server~~ said source by said ~~client~~ destination.

10. (currently amended) The method of Claim 9 wherein said ~~third portion of data~~ response ~~has been received by~~ is the result of an action or process carried out by said source at the request of said ~~client~~ destination.

11. (currently amended) The method of Claim 1 ~~further comprising declaring said first portion of data~~ wherein units are declared to have been lost by virtue of their failure to arrive within some period of time or count of data arrival.

12. (currently amended) The method of Claim 11 further comprising sending a request message for ~~said first portion of data~~ one or more units which have been declared lost.

13. (currently amended) The method of Claim 12 further comprising ~~marking~~ adding

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said ~~first portion of data~~ <u>requested units</u> ~~as "in transit"~~ <u>to said window</u>.

14. (currently amended) The method of Claim 11 further comprising reducing said ~~window's size~~ <u>limiting number of units within said window</u> as a result of said declaring ~~said first portion of data~~ <u>of one or more units to be</u> lost.

15. (currently amended) The method of Claim 1 further comprising increasing said ~~window's size~~ <u>limiting number of units within said window</u>.

16. (currently amended) A method that controls the transportation of an amount of data over a network, wherein, when said amount of data is viewed as being contiguous, such that a next piece of said amount of data is adjacent to a piece of said amount of data from the perspective of said piece of said amount of data, a window that is viewed as being superimposed upon said amount of data defines a specific portion of said amount data based upon a size of said window and a positioning of said window, said method comprising:

   a) allowing non contiguous portions of said amount of data to be in transit over said network such that:

      1) a first portion of said amount of data that is allowed to be in transit within said network can be viewed as being defined by a first window;

      2) a second portion of said amount of data that is allowed to be in transit within said network can be viewed as being defined by a second window, wherein said first and second windows can be viewed as being superimposed upon said amount of data such that a third portion of said amount of data that is not in transit within said network exists between said first window and said second window, said second

portion having a next piece of said amount of data from the perspective of a piece of said amount of data that is within said third portion; and

b) wherein:

1) if: said next piece from the perspective of said piece within said third portion arrives at its destination causing said third portion to expand;

2) then: a next piece of said amount data from the perspective of said second portion is allowed to be in transit within said network causing said second window to slide.

17. (previously presented) The method of claim 16 wherein all of said amount of data is to be transported from a server to a client over said network.

18. (previously presented) The method of claim 17 wherein at least a piece of said amount data that is within said first portion resides within a reply message that has been sent from said server to said client.

19. (previously presented) The method of claim 17 wherein at least a piece of said amount of data that is within said first portion resides within a first reply message that has been sent from said server to said client and at least a piece of said amount of data that is within said second portion resides within a second reply message that has been sent from said server to said client.

20. (previously presented) The method of claim 19 wherein said second reply message is one reply message of a burst of reply messages.

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21. (previously presented) The method of claim 17 further comprising sending a request message from said client to said server for said next piece of said amount data from the perspective of said second portion.

22. (previously presented) The method of claim 21 further comprising starting a timer that measures how long it takes for said next piece of said amount data from the perspective of said second portion to arrive at said destination.

23. (previously presented) The method of claim 16 wherein at least a piece of said amount of data within said first portion is no longer deemed in transit within said network because of the expiration of a timer.

24. (currently amended) The method of claim 22 wherein ~~said declaration is the result of the expiration of a timer~~ the measurement by said timer having exceeded a value results in the declaration that said next piece of said amount of data has been lost.

25. (previously presented) The method of claim 16 wherein said next piece of said amount data from the perspective of said second portion is the same size as said piece of said amount of data that arrived at its destination.

26. (currently amended) A method, comprising:
   a) ± sending a message onto a network from a client to a server that requests a portion of an amount of data from said server wherein the total amount of said amount of data that is:
      1) requested by said client from said server through one or more messages and

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2) not received by said client is within a limit that controls how much of said amount of data is in transit on said network, said limit being maintained by said client and,

b) ± starting a timer at said client that times how long it takes for any piece of said portion to be received at said client; and

c) sending a second message from said client to said server for another portion of said amount of data, said sending a second message in response to a reception of at least a piece of said portion, said reception occurring no later than an expiration of said timer.

27. (previously presented) The method of claim 26 wherein said another portion is the same size as said at least a piece of said portion.

28. (previously presented) The method of claim 26 wherein the size of said another portion is the minimum of:

1) the size of said at least a piece of said portion

2) said limit minus an amount of said data that is characterized as being "in transit" on said network.

3) a second limit that sets a limit on the maximum amount of data that may be requested by said client in said second message

4) a third limit that sets a limit on the maximum amount of said data that may be sent by said server to said client as a result of said server's reception of said second message.

29. (previously presented) The method of claim 26 wherein said client tracks various portions of said amount of data over the course of a transaction in which said

amount of data is eventually transported from said server to said client, said various

portions being tracked according to the following set of characteristics:

1) those one or more portions that have been received from said server before the expiration of its timer.

2) those one or more portions for whom a requesting message has been sent onto said network from said client to said server and whose timer has not yet expired.

3) those one or more portions that are neither characteristic 1) or characteristic 2).

30. (currently amended) A method, comprising:

tracking a plurality of portions of an amount of data over the course of a transaction

in which said amount of data is eventually transported from a server to a client, said

~~various~~ plurality of portions being tracked by said client consistent with the following

set of characteristics:

1) those one or more portions that have been received from said server before the expiration of its timer.

2) those one or more portions for whom a requesting message has been sent onto said network from said client to said server and whose timer has not yet expired.

3) those one or more portions that are neither characteristic 1) or characteristic 2)

wherein when said amount of data is viewed as being contiguous, such that a next

piece of said amount of data is adjacent to a piece of said amount of data from the

perspective of said piece of said amount of data, a first portion having characteristic

1) is between a second and third portions having characteristic 2).

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31. (previously presented) The method of claim 30 further comprising re-characterizing a specific portion of said amount of data from characteristic 2) to characteristic 1) as a result of said specific portion being received at said client, said specific portion being received prior to the expiration of its timer.

32. (previously presented) The method of claim 30 further comprising re-characterizing a specific portion of said amount of data from characteristic 2) to characteristic 3) as a result of said specific portion not having been received at said client after the expiration of its timer.

33. (previously presented) The method of claim 32 further comprising sending another message onto said network from said client to said server that requests said specific portion, and, starting another timer for said specific portion, and, re-characterizing said specific portion from characteristic 3) to characteristic 2).

34. (currently amended) The method of claim ~~32~~ 33 further comprising re-characterizing said specific portion from characteristic 2) to characteristic 1) as a result of said specific portion being received at said client, said specific portion being received prior to the expiration of its said another timer.

35. (currently amended) The method of claim ~~32~~ 30 further comprising ignoring a second reception of a specific portion from characteristic 1) at said client.

36. (currently amended) The method of claim 30 wherein said ~~3)~~ characteristic 3) is further resolved into the following characteristics:

    3a) those of said portions for whom a requesting message has been sent onto

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said network from said client to said server and whose timer has expired, but, who are not yet permitted to have another requesting message sent from said client to said server.

   3b) those of said portions for whom a requesting message may be sent onto said network from said client to said server.

37. (previously presented) The method of claim 36 further comprising re-characterizing a specific portion from said characteristic 3a) to said characteristic 3b) after a period of time has elapsed beyond the expiration of a timer for said specific portion.

38. (currently amended) The method of claim 22 36 further comprising re-characterizing a specific portion from said characteristic 3b) to said characteristic 2) as a result of a decision to prepare another requesting message from said client to said server for said specific portion.

39. (currently amended) The method of claim 24 36 further comprising reducing a limit that limits the combined size of those portions allowed to have characteristic 2) as a result of a specific portion of said amount of data having its timer expire so as to be re-characterized from characteristic 2) to characteristic 3a).

40. (currently amended) The method of claim 24 39 wherein said reducing is an amount that is the same size as said specific portion.

41. (currently amended) The method of claim 24 39 further comprising re-characterizing said specific portion from said characteristic 3a) to said characteristic 1) as a result of said specific portion having been received by said client.

42. (currently amended) A machine readable medium having stored thereon a sequence of instructions which, when executed by a processing system, cause said processing system to perform a method, said method, comprising:

    a) ± sending a message onto a network from a client to a server that requests a portion of an amount of data from said server wherein the total amount of said amount of data that is:

        1) requested by said client from said server through one or more messages and

        2) not received by said client

    is within a limit that controls how much of said amount of data is in transit on said network, said limit being maintained by said client and,

    b) ± starting a timer at said client that times how long it takes for any piece of said portion to be received at said client; and

    c) sending a second message from said client to said server for another portion of said amount of data, said sending a second message in response to a reception of at least a piece of said portion, said reception occurring no later than an expiration of said timer.

43. (previously presented) The machine readable medium of claim 42 wherein said another portion is the same size as said at least a piece of said portion.

44. (previously presented) The machine readable medium of claim 42 wherein the size of said another portion is the minimum of:

    1) the size of said at least a piece of said portion

    2) said limit minus an amount of said data that is characterized as being "in transit" on said network.

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3) a second limit that sets a limit on the maximum amount of data that may be requested by said client in said second message

4) a third limit that sets a limit on the maximum amount of said data that may be sent by said server to said client as a result of said server's reception of said second message.

45. (previously presented) The machine readable medium of claim 42 wherein said client tracks various portions of said amount of data over the course of a transaction in which said amount of data is eventually transported from said server to said client, said various portions being tracked according to the following set of characteristics:

1) those one or more portions that have been received from said server before the expiration of its timer.

2) those one or more portions for whom a requesting message has been sent onto said network from said client to said server and whose timer has not yet expired.

3) those one or more portions that are neither characteristic 1) or characteristic 2).

46. (currently amended) A machine readable medium having stored thereon a sequence of instructions which, when executed by a processing system, cause said processing system to perform a method, said method comprising:
tracking a plurality of portions of an amount of data over the course of a transaction in which said amount of data is eventually transported from a server to a client, said ~~various~~ plurality of portions being tracked by said client consistent with the following set of characteristics:

1) those one or more portions that have been received from said server before

the expiration of its timer.

2) those one or more portions for whom a requesting message has been sent onto said network from said client to said server and whose timer has not yet expired.

2) those one or more portions that are neither characteristic 1) or characteristic 2)

wherein when said amount of data is viewed as being contiguous, such that a next piece of said amount of data is adjacent to a piece of said amount of data from the perspective of said piece of said amount of data, a first portion having characteristic 1) is between a second and third portions having characteristic 2).

47. (previously presented) The machine readable medium of claim 46 wherein said method further comprises re-characterizing a specific portion of said amount of data from characteristic 2) to characteristic 1) as a result of said specific portion being received at said client, said specific portion being received prior to the expiration of its timer.

48. (previously presented) The machine readable medium of claim 46 wherein said method further comprises re-characterizing a specific portion of said amount of data from characteristic 2) to characteristic 3) as a result of said specific portion not having been received at said client after the expiration of its timer.

49. (previously presented) The machine readable medium of claim 48 wherein said method further comprises sending another message onto said network from said client to said server that requests said specific portion, and, starting another timer for

said specific portion, and, re-characterizing said specific portion from characteristic 3) to characteristic 2).

50. (previously presented) The machine readable medium of claim 49 wherein said method further comprises re-characterizing said specific portion from characteristic 2) to characteristic 1) as a result of said specific portion being received at said client, said specific portion being received prior to the expiration of its said another timer.

51. (currently amended) The machine readable medium of claim 49 46 wherein said method further comprises ignoring a second reception of said a specific portion at said client.

52. (currently amended) The machine readable medium of claim 49 46 wherein said characteristic 3) is further resolved into the following characteristics:

3a) those of said portions for whom a requesting message has been sent onto said network from said client to said server and whose timer has expired, but, who are not yet permitted to have another requesting message sent from said client to said server.

3b) those of said portions for whom a requesting message may be sent onto said network from said client to said server.

53. (previously presented) The machine readable medium of claim 52 wherein said method further comprises re-characterizing a specific portion from said characteristic 3a) to said characteristic 3b) after a period of time has elapsed beyond the expiration of a timer for said specific portion.

54. (currently amended) The machine readable medium of claim 53 52 wherein said

method further comprises re-characterizing a specific portion from said characteristic 3b) to said characteristic 2) as a result of decision to prepare another requesting message from said client to said server for said specific portion.

55. (currently amended) The machine readable medium of claim ~~54~~ <u>52</u> wherein said method further comprises reducing a limit that limits the combined size of those portions allowed to have characteristic 2) as a result of a specific portion of said amount of data having its timer expire so as to be re-characterized from characteristic 2) to characteristic 3a).

56. (previously presented) The machine readable medium of claim 55 wherein said reducing is an amount that is the same size as said specific portion.

57. (previously presented) The machine readable medium of claim 55 wherein said method further comprises re-characterizing said specific portion from said characteristic 3a) to said characteristic 1) as a result of said specific portion having been received by said client.

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